

CLAIMS

1. A method for manufacturing a field emission display, comprising:
providing a cathode plate having a plurality of electron emitters;
5 providing an anode plate, wherein providing the anode plate comprises:
providing a substrate having a first film disposed thereon, the substrate
having a first edge opposite a second edge and a third edge opposite a fourth edge;
forming a first exposed portion substantially parallel to the first edge;
disposing a second film on the first film;
10 forming a second exposed portion substantially parallel to the third edge;
developing the first and second films, wherein the first and second exposed
portions are fixed to the substrate and portions of the substrate are uncovered; and
disposing phosphor on the uncovered portions of the substrate; and
coupling the anode plate to the cathode plate.
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2. The method of claim 1, wherein the substrate is selected from the group of
glass and quartz.
3. The method of claim 1, wherein the first film comprises a photosensitive
20 film.
4. The method of claim 3, wherein the first film comprises a photosensitive
black paste.
5. The method of claim 4, wherein the photosensitive black paste contains up to
25 20% silver by weight.
6. The method of claim 4, wherein the photosensitive black paste comprises an
oxide selected from the group ruthenium oxide and nickel oxide.
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7. The method of claim 3, wherein forming a first exposed portion includes
exposing the first film to radiation.

8. The method of claim 3, wherein forming the first exposed portion includes forming a plurality of first exposed portions spaced apart from one another and substantially parallel to the first edge.

5 9. The method of claim 1, wherein the second film comprises a photosensitive material.

10. The method of claim 1, wherein the photosensitive material comprises silver.

10 11. The method of claim 1, wherein disposing the phosphor includes screen printing the phosphor onto the uncovered portions of the substrate.

12. The method of claim 1, further including forming an alignment feature on the substrate.

15 13. The method of claim 12, wherein forming the alignment feature comprises coupling a material to the substrate, the material selected from ceramic, glass, plastic, or the like.

20 14. A method for manufacturing a flat panel display, comprising:
providing a substrate having a first photosensitive layer disposed thereon;
exposing a first portion of the first photosensitive layer to radiation;
disposing a second photosensitive layer on the first photosensitive layer;
exposing a first portion of the second photosensitive layer to radiation;
25 developing the exposed first portions of the first and second photosensitive layers to uncover a portion of the substrate; and
disposing a phosphor paste on the uncovered portion of the substrate.

30 15. The method of claim 14, wherein the first photosensitive layer is a photosensitive black paste comprising an oxide selected from the group ruthenium oxide and nickel oxide.

16. The method of claim 14, wherein the second photosensitive layer comprises a photosensitive silver paste.

17. The method of claim 14, wherein exposing the first portion of the photosensitive layer includes exposing at least two rectangular stripes that are substantially parallel to one another and substantially perpendicular to the exposed first portions of the first photosensitive layer.

18. The method of claim 14, wherein developing the exposed first portions of the first and second photosensitive layers includes forming a channel structure in the first and second photosensitive layers.

19. The method of claim 14, further including forming a fiducial on the substrate that allows alignment for exposing the first portion of the second photosensitive layer.

20. The method of claim 14, further including coupling a cathode plate to the substrate.

~~21.~~ An anode for use in a field emission display, comprising:
a substrate having first and second opposing edges;
a pair of light absorbing strips disposed on the substrate, wherein the pair of light absorbing strips are spaced apart from each other and substantially parallel to each other;
a pair of conductive ribs disposed over the pair of light absorbing strips, wherein the pair of conductive ribs are spaced apart from each other, substantially parallel to each other, and substantially perpendicular to the pair of light absorbing strips, and wherein the pair of light absorbing strips and the pair of conductive ribs cooperate to form a channel; and
a phosphor disposed in the at least one channel.

22. The anode of claim 21, further including an alignment feature disposed on the substrate.

23. The anode of claim 21, wherein the pair of conductive ribs comprises up to 20 percent silver by volume.